

## **Amendments to th Specification**

At p. 1, before paragraph [0001], insert

### **--CROSS REFERENCE TO RELATED APPLICATION**

Please replace paragraph 1 with the following rewritten paragraph:

**[0001]** This application is a continuation of U.S. Application No. 10/133,551  
09/909,695 filed on April 26, 2002 ~~September 20, 2001~~, which is a continuation of U.S.  
Patent Application No. 09/909,695 filed July 20, 2001.

Please replace paragraphs 4-7 with the following rewritten paragraphs:

**[0004]** HFC-245fa is a known chemical species that has found use as a foam blowing agent and also as a refrigerant. HFC-245fa has been prepared according to one known process via the treatment of 1-chloro-3,3,3-trifluoropropene ( $\text{CHCl}=\text{CHCF}_3$ , HCFC-1233zd) with excess HF. ~~However~~, purification of HFC-245fa from the resulting reaction mixture is difficult because HFC-245fa, HCFC-1233zd and HF are difficult to separate by distillation.

**[0005]** U.S. Patent No. 6,018,084 to Nakada et al., ~~entitled Process for producing 1,1,1,3,3-pentafluoropropane~~, discloses a process wherein 1,1,1,3,3-pentachloropropane ( $\text{CCl}_3\text{CH}_2\text{CHCl}_2$ ) is reacted with HF in the ~~vapor phase~~ gaseous phase in the presence of a fluorination catalyst to form HCFC-1233zd, which is then reacted with HF in the gaseous phase to produce (HFC-245fa).

**[0006]** U.S. Patent No. 5,895,825 to Elsheikh et al., ~~entitled Preparation of 1,1,1,3,3-pentafluoropropane~~, discloses a process wherein HCFC-1233zd is reacted with HF to form 1,3,3,3-tetrafluoropropene ( $\text{CF}_3\text{CH}=\text{CHF}$ ) followed by further HF addition to form HFC-245fa.

[0007] Although the above described methods serve to produce HFC-245fa, these ~~prior art~~ preparations are characterized by numerous disadvantages, including expensive raw materials, poor yields and poor selectivity which preclude their use on a commercial scale.

Please replace paragraph 10 with the following rewritten paragraph:

[0010] The 1,1,1,3,3-pentachloropropane is then is dehydrochlorinated with a Lewis acid catalyst to produce 1,1,3,3-tetrachloropropene, which is then hydro fluorinated in multiple steps to produce HFC-245fa.

Please replace paragraph 14 with the following rewritten paragraph:

[0014] This disclosure of the invention is submitted in furtherance of the constitutional purposes of the U.S. Patent Laws "to promote the progress of science and useful arts" (Article 1, Section 8). ~~For the purposes of promoting an understanding of the principles of the invention, reference will now be made to the embodiments illustrated in the examples and specific language will be used to describe the same. It will nevertheless be understood that no limitation of the scope of the invention is thereby intended. The invention includes any alterations and further modifications in the exemplified devices and described methods and further applications of the principles of the invention which would normally occur to one skilled in the art to which the invention relates.~~

Please replace paragraph 31 with the following rewritten paragraph:

**[0031]** A mixture of HFC-245fa and HF (20.26 wt%) was fed into a reactor with ~~KF/2.4~~ a 2.4 KF/HF (mole ratio) solution at 118°C. After absorbing HF, only 1.94% HF remained in the HFC-245fa. The HF was recovered by vacuum evaporation of the KF/xHF solution (molar ratio) as per Example 4, preferably where  $x \geq 2$ , usually 2-3.

Please replace paragraph 39 with the following rewritten paragraph:

**[0039]** A preferred embodiment of the present invention includes a further purification step, ~~step (7)~~, wherein the HFC-245fa, isolated as a bottoms product from step (6), is purified via water scrubbing and distillation to remove residual traces of moisture and/or acid. Numerous processes are well known in the art and can be employed for the removal of residual amounts of acid and water, for example treatment with molecular sieves, and the like.